

REMARKS

In the claims, Claim 4 has been amended for consistency with Claim 1. Claim 7 has been amended for consistency with Claim 4.

Claim 21 is a method claim and its wording has been rearranged to make this clearer. Claim 20 has also been rearranged for similar reasons.

With regard to the claim rejections under 35 USC §102, the applicants respectfully disagree with the examiner's interpretation of US 6,195,330 (Sawey). The applicants agree that Sawey attempts to address a similar problem to that addressed by the present invention and it achieves this by buffering data signals in order that they may be realigned for hitless protection switching. However, Sawey addresses a more specific problem which concerns the movement of payloads within a data frame (see for example column 1, lines 41 to 61 of US 6,195,330).

Accordingly, Sawey does not disclose the following features of Claim 1:

- A. Each data element is associated with an identifier that identifies to which data frame it belongs; and
- B. The apparatus is arranged to align the respective data signals received on said transmission path by causing said selector mechanism to select between transmission paths by selecting between a respective data element from each path wherein the associated identifiers of said respective data elements indicate that said respective data elements belong to the same data frame.

With regard to feature A, the payload indicator markers 28, 29 disclosed by Sawey are not frame identifiers and cannot be used as such. Rather, these payload indicator markers (which are otherwise known as pointers) indicate the relative position of a payload within its data frame (see for example column 5, lines 39 to 42 and column 4, lines 43 to 45 of US 6,195,330).

With regard to the feature B, because Sawey does not associate frame identifiers with data elements, it cannot select between data elements from the same data frame, as required by feature B. In fact, Sawey does not make a selection between data elements based on any sort of tag or identifier. Rather Sawey performs alignment by adjusting the payload indicator markers to account for delay differentials (see column 6, lines 40 to 50).

With regard to obviousness, it is emphasized that, whilst Sawey does address a similar general problem to that addressed by the invention, it is particularly concerned with a more specific problem, namely discrepancies in pointer values that arise because of network delays (see in particular column 4, lines 43 to 47). Sawey solves this particular problem by adjusting the pointer values (i.e. the payload indicator markers 28, 29) to account for differential time delays and adjusts the read counter 44 of the elastic buffer 40 in accordance with the difference between the respective payload indicator marker values to synchronise the reading of the working and protect signals from their respective buffers (this is described in more detail from column 5, line 43 to column 6, line 50 of US 6,195,330). At column 6, lines 48 to 50, Sawey emphasizes that it is the adjusting for delay differential between the working and protected payload indicator markers 28, 29 that is “key” to the Sawey invention. It is respectfully submitted therefore that Sawey’s teaching would lead a skilled person away from features A and B listed above.

Significantly, Sawey’s invention will fail if the delays incurred between the working and protect paths are greater than one data frame. This is because Sawey concentrates on pointer values within data frames and so cannot cope with delays of more than one frame since the pointer values are relative values that only indicate the position of a payload within a given frame. Moreover, using frame identifiers would be meaningless within the context of the Sawey invention since this would have no bearing on the pointer value (working and protect payload indicator markers 28 and 29) that are key to the Sawey invention.

In contrast, the apparatus of Claim 1 can cope in situations where the delay between the main transmission path and standby transmission path are greater than one data frame since the selection between data paths is dependent on the frame identifiers associated with the data elements, as stipulated in features A and B above.

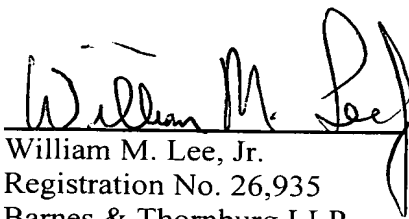
It is respectfully submitted therefore that Claim 1 would not have been obvious in the light of Sawey. Similarly, it is respectfully submitted that Claim 19, 20, and 21 are both novel and non-obvious when compared to Sawey.

It is further submitted that the remaining claims, being dependant on one and other of the independent claims, are also novel and non obvious.

Given the above, the allowance of the application is solicited.

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Respectfully submitted,

A handwritten signature in black ink, appearing to read "William M. Lee, Jr.", is written over a horizontal line.

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AMENDMENT TO THE DRAWINGS

Replacement Drawing Sheet 2/4 is attached hereto. Figure 3 is amended so that each delay element, or buffer, is given its own reference numeral 40, 42 in accordance with page 14, lines 11 to 14 of the technical description.

The labelling of Figure 2 is also amended to show that Figure 2 illustrates the prior art.